

REMARKS

Applicant appreciates the Examiner's thorough examination of the subject application and requests reexamination and reconsideration of the subject application in view of the preceding amendments and the following remarks. Applicant has carefully reviewed and considered the Office Action mailed on June 11, 2007, and the references cited therewith. Reconsideration and allowance of the subject application, as amended, are respectfully requested.

Claims 1-6, 8-13, 15 and 16 are pending in this application. As of this amendment, claims 1, 9 and 16 have been amended.

Claims 1-3, 9 and 10 stand rejected under 35 USC 103(a) as being unpatentable over Vairavan (US Pub. No. 2002/0083344) in view of Chopra et al (US Pat. No. 6,631,466) in view of Hui et al (US Pub. No. 2004/0010712) and in view of Canion et al (US Pat. No. 2002/0108059). Applicant respectfully traverses this rejection in light of the preceding amendments and foregoing remarks.

Applicant's newly amended claim 1 is provided below for the Examiner's convenience.

1. (Currently Amended): An integrated firewall/VPN system, comprising:
 - at least one wide area network (WAN);
 - at least one local area network (LAN); and
 - an integrated firewall/VPN chipset configured to send and receive data packets between said WAN and said LAN, said chipset comprising:
 - a firewall comprising a first layer including a header match packet filtering engine configured to provide pattern matching in selected headers of data, a second layer including a contents match packet filtering engine configured to analyze the scope of at least one data packet, a third layer including at least one application proxy configured to provide additional pattern matching using a hardware engine configured to provide pre-analysis processing to reduce the workload of a central processing unit (CPU) and a fourth layer including a session match engine configured to store a TCP/UDP connection setup in a look-up-table and to forward the setup progress to said CPU for tracking;
 - a VPN configured to provide security functions for data between said LAN and said WAN, wherein said security functions are selected from the group consisting of encryption, decryption, encapsulation, and decapsulation of said data packets, said VPN including a VPN packet buffer configured to receive at least one of said data packets and to forward said at least one data packet to an inbound VPN processor configured to decrypt and decapsulate said at least one data packet, said VPN further including an inbound security database having a database of tunnels configured to provide said inbound VPN processor with tunnel information used to decrypt and decapsulate said at least one data packet, said VPN further including protocol instructions having microcodes configured to instruct said VPN processor to decrypt and decapsulate said at least one data packet according to a user-defined security procedure; and

an interface configured to determine if said data packets are plain text or cipher text, said interface further configured to forward a preselected number of bytes to said firewall if said data packets are plain text, said interface further configured to forward said data packets to said VPN if said data packets are cipher text. (Emphasis Added).

Thus, Applicant's claim 1 now recites an integrated VPN/firewall chipset including "a third layer including at least one application proxy configured to provide additional pattern matching using a hardware engine configured to provide pre-analysis processing to reduce the workload of a central processing unit (CPU) and a fourth layer including a session match engine configured to store a TCP/UDP connection setup in a look-up-table and to forward the setup progress to said CPU for tracking." As discussed in the subject application, the firewall may utilize pre-analysis processing "to analyze the preselected data instead of having to operate on the entire data packet." Subject application, para. [0022]. In this way, the speed and overall efficiency of the firewall may be increased.

Moreover, claim 1 has been further amended to provide further detail to the VPN. For example, claim 1 now recites "said VPN including a VPN packet buffer configured to receive at least one of said data packets and to forward said at least one data packet to an inbound VPN processor configured to decrypt and decapsulate said at least one data packet, said VPN further including an inbound security database having a database of tunnels configured to provide said inbound VPN processor with tunnel information used to decrypt and decapsulate said at least one data packet, said VPN further including protocol instructions having microcodes configured to instruct said VPN processor to decrypt and decapsulate said at least one data packet according to a user-defined security procedure." Applicant is unable to find reference to a VPN having this configuration in any of the cited references.

Claim 1 has been further amended to recite an integrated VPN/firewall chipset including "an interface configured to determine if said data packets are plain text or cipher text, said interface further configured to forward a preselected number of bytes to said firewall if said data packets are plain text, said interface further configured to forward said data packets to said VPN if said data packets are cipher text." As discussed above, this pre-processing may increase the speed and overall efficiency of the firewall.

Applicant is unable to find reference to an integrated VPN/firewall system, which includes each and every limitation of Applicant's newly amended claim 1 in either Vairavan, Chopra, Hui, or Canon. Therefore, Applicant respectfully submits that newly amended independent claim 1 is in condition for allowance.

Claims 9 and 16 have been amended to include similar limitations and are also believed to be in condition for allowance. Since claims 2-6, 8, 10-13, and 15 depend either directly or indirectly from Applicant's newly amended independent claims 1, 9 and 16, Applicant contends that these claims are in condition for allowance as well.

Having dealt with all the objections raised by the Examiner, it is respectfully submitted that the present application, as amended, is in condition for allowance. Thus, early allowance is earnestly solicited.

If the Examiner desires personal contact for further disposition of this case, the Examiner is invited to call the undersigned Attorney at 603.668.6560.

In the event there are any fees due, please charge them to our Deposit Account No. 50-2121.

Respectfully submitted,
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